

Impact of Beef Ban on Economy and Meat Processing Industry of India: A Complete Value Chain Analysis

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ABSTRACT:

The recent ban on cow slaughtering in India has brought into debate highly emotive and contentious issues to the forefront. The meat industry is characterized by controls across the entire value-chain of production and sale, which not only hampers its efficiency but also exacerbates the growth and development in meat industry in particular and the country in general has multiple linkages with social, economic and environmental issues. Indian beef meat is witnessing strong demand in international markets due to its lean character and near organic nature. Unlike cow slaughter, there is no social taboo in killing buffalo for meat. The purpose of this study is to conduct a triple bottom line assessment of meat processing industry and suggest alternatives that could improve the current sustainable practices across various stakeholders. A rational approach to the subject is the need of the hour tacking in to account the economic, social as well as ecological.

Keywords: Meat processing industry, Beef ban, Carabeef

INTRODUCTION

Livestock is an important source of income for the farmers and rural poor people. As per the Central Statistical Organization (CSO) estimates, the livestock sector contributed approximately 4.07% to GDP (Gross Domestic Product) and over 27% to the agricultural GDP. India, with its large livestock population, which includes 199.1 million cattle, 105.3 million buffaloes, 71.5 million sheep, 140.5 million goats, 11.3 million pigs contributing substantially to social and economic well-being of the country. Present meat production in India is estimated at 6.27 million tonnes, which is 2.21% of the world's meat production. The contribution of meat from buffalo, cattle, sheep, goat, pig, poultry and other species is about 23.33%, 17.34%, 4.61%,

9.36%, 5.31%, 36.68% and 3.37% respectively. The buffalo in India, apart from providing milk, contributed immensely to the national economy. Buffalo meat (carabeef) is one of the major commodities, among livestock products, exported from the country. Contribution of buffalo in bringing about the "White Revolution" in India is well known. But India is now poised to achieve the "Pink Revolution" through buffalo.

Buffalo meat affords an easy means of preparing low priced fast meat foods by restricting the cost of raw material. According to data compiled by the animal husbandry departments of all states, buffalo meat produced in registered municipal slaughterhouses

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increased from 5,57,000 tonnes in 2008 to 9,36,000 tonnes in 2011. Uttar Pradesh was the top buffalo meat-producing state in 2011, followed by Maharashtra and Andhra Pradesh. Uttar Pradesh is emerging as a hub for export of buffalo meat for the country. From 2003 to 2007, 12.27% growth in buffalo population has been recorded. In UP, buffalo contributes to more than 68% of milk production and 73% of meat production. Likewise other states should also be encouraged to develop this sector. The buffalo meat is used for industrial purposes in the production of sausages, patties, nuggets, corn beef, ham and so on. Among the animal products exported from India, meat and meat products account for more than 90% of the total exports volume. UP have maximum export units which show acceptability of this industry in this state.

Literature Review

Various studies have been conducted to test the value chain analysis in different sector, but in the meat process industry in India no study has been found. The researchers have studied this analysis from different views and in different environments. The following study is very interesting and useful for this research.

The meat processing industry covers the study of wastewater treatment by M.R. Johns (1995) in his paper entitled "Development in wastewater treatment in the meat processing industry: a review, and showed the result was significant progress on issues such as nutrient removal and high rate anaerobic treatment. Other researchers Karl Mc Donald, Darwin Sun (1999) has worked on "Predictive food microbiology for the meat industry: a review and concluded that the role and of predictive food microbiology will increase as understanding of the complex interactions between microorganisms and food becomes clearer. The researcher Jesper strandskov (2006) propound in his research paper entitled "Sources of Competitive Advantages and Business Performance" which based on data from the European meat processing industry three sets of competitive sources on business performance have been studied in this paper i.e. Firm Specific Advantages (FSAs), Localization Specific Advantages (LSAs) and Relation Specific Advantages (RSAs). The results indicated that the FSAs and the RSAs were the most important explanatory variables

on business performance, however, with strong interaction effects between the two sets of variables.

Many authors like Eoin Desmond (2006), John W. Siebert et al. (2000), Jabir Ali (2004) have conducted the study in meat processing industry in different view and in different environment. Someone measure the productivity of meat, someone uses the study for wastewater and another for competitive advantages and in financial performance of firms have also been evaluated but the study on impact of beef ban are difficult to find. It has been studied by value chain analysis (Ahmad & Nomani, 2015).

Research Objectives

1. To study the value chain and analyze the cost of production of domestically consumed Indian buffalo meat (carabeef).
2. To study the value chain and analyze the cost of production of export-oriented Indian buffalo meat (carabeef).
3. To generate information on areas for intervention in the value chain of buffalo meat production.
4. To review demand for buffalo meat in the domestic and export markets and India's production capacity.

Indian Buffalo Meat Value Chain for Domestic Market

The domestic value chain for buffalo meat production in India consists of a network of stakeholders, who work within specific stages from farm to plate. The chain integrates livestock producers, traders, butchers, wholesale meat dealers and retailers. The chain integrates livestock producers, traders, butchers, wholesale meat dealers and retailers. Most meat consumed in India is produced in municipal slaughterhouses. The major consuming states of buffalo meat in India are Uttar Pradesh, Andhra Pradesh (erstwhile), Kerala, West Bengal and Maharashtra. The rising slaughter of buffalo in these states is indicative of increasing consumer demand for buffalo meat. This emerges from the fact that there are very few slaughterhouses in India authorized by APEDA to supply buffalo meat for meat is purchased by wholesale meat dealers or retailers. Wholesale meat dealers and retailers have to obtain licences from municipal corporations for buying and selling on the

premises of a slaughterhouse. The Indian buffalo meat industry for domestic consumption is based on production of fresh meat which is processed and sold daily. Retail outlets generally are not equipped with air conditioners, refrigerators or deep freezers. There is need for a sustainable buffalo production system in the country to meet the future demand of buffalo meat. Therefore priority should be given to implementation of a male buffalo calf rearing program for the long-term benefit of the farmers, country and the trade.

Trends in Buffalo Meat Consumption in Domestic Market

1. Slaughter of buffalo for domestic consumption is trending upward in some major meat producing states, which points to increasing domestic demand.

2. The pattern of buffalo meat consumption in India may differ from state to state due to differences in consumer preference and religious taboos.

3. There are no restrictions on buffalo slaughter when compared to cows (genus *Bos* spp.) in most states.

4. Buffalo meat is one of the cheaper options of animal protein for consumers. The average price of buffalo meat is Rs 130-150/kg whereas the average price for mutton is Rs 380/kg, fish is Rs 200-500/kg, and chicken is Rs 180 per kg.

Structure of the Buffalo Meat Sector

Buffalo meat production can be classified into two major value chains: (a) large-scale production for export, and (b) municipal slaughterhouse system for domestic consumption. The third prevalent model is informal smallholder “backyard” slaughtering in remote areas. Backyard slaughter is characterized by low inputs and slaughter of animals for one's own consumption or for sale of surpluses to local markets. Municipal slaughterhouses are State Government bodies that provide services for buffalo meat production for domestic consumption (figure 1). Production for export consists of companies controlling the initial stage of animal purchase from livestock traders to marketing deboned meat in the international market.

Buffalo meat produced in India is primarily raised by dairy farmers. Most farmers sell their animals to traders. Livestock traders don't own slaughter facilities but rather use the services of butchers at municipal slaughterhouses. The buffalo meat is then collected by wholesale meat dealers or in some instances directly by retailers. This chapter sheds light on the roles and responsibilities of various actors as the product moves from farm to consumers and also various stages in the value chain and the economics involved in each stage.

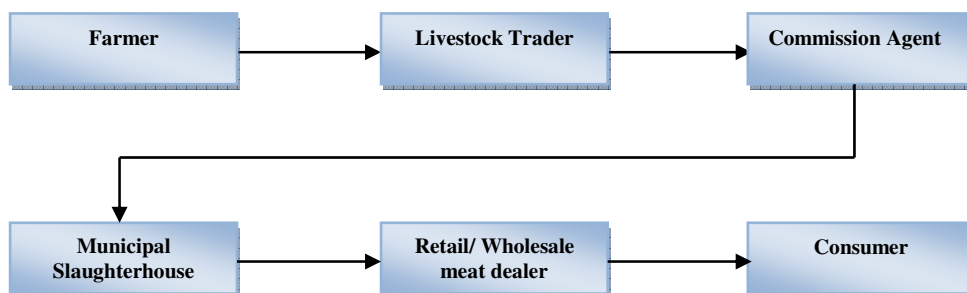


Figure 1: Buffalo meat value chain domestic

1. Farmers rear buffalo till they reach an unproductive age and thereafter sell them either to traders or at the livestock market

Role of farmers as primary producers:

India has approximately 15% of the world's cattle (genus *Bos* spp.) inventory and nearly 58% (estimated 113 million, FAO 2011) of the world's water buffalo (*Bubalus* spp.) inventory. These animals are generally reared by subsistence farmers with small land holdings, each rearing 2 to 3 buffalo. Though farmers play a crucial role in rearing buffalo, but ironically, raising buffalo, especially for meat production, is not a well planned activity. Buffalo are not raised on dedicated farms for meat production. Feeding consists of dry roughage supplemented with seasonal green fodder and concentrates.

2. Traders transport the purchased animal to a municipal slaughterhouse for slaughtering.

Role of traders as aggregators and facilitators:

The value chain of buffalo meat production for the domestic market is very informal. Traders play a very active role in this value chain as intermediary aggregators. Farmers (primary producers) have limited market access and are isolated from major consumers due to logistical and transport costs. Farmers often avoid these costs directly by selling to intermediary aggregators. Traders buy animals from various farmers and pool them for further marketing or haul purchased animals to municipal slaughterhouses. During transit of the animals from livestock markets to slaughterhouses health certificates from state veterinarians are also obtained. Different types of traders (middlemen) involved in the value chain are:

a) **Petty traders** are the traders involved in occasional (irregular) marketing of animals; they transact a few animals on any given market day.

b) **Commission agents** facilitate animal transactions between sellers (farmers/livestock traders) and buyers (butchers) and charge a commission on every sale.

Butchers play an integral role in the value chain by performing slaughtering operations. The word butcher denotes the grassroots-level worker performing slaughter and dressing operations of food animals in slaughterhouses. The scope is further extended to include workers

who handle carcasses and meat in meat processing establishments and in retail meat stalls. Non-butchers are workers engaged in the meat industry in jobs other than slaughter and dressing operations, such as animal attendants, sanitation staff, by-product handlers, meat packaging staff and support staff working in Effluent Treatment Plants (ETP), cold rooms, and machinery units. Butchers play an integral role in the value chain of buffalo meat production both for domestic as well as export market by undertaking slaughtering operations. Slaughter of animals is a state subject in India. Slaughterhouses are managed by local bodies such as corporations, municipalities and panchayats. For slaughtering animals, a trader takes the animal to municipal slaughterhouses, wherein a slaughtering fee of a specified amount is to be paid by the trader.

3. Retailers/wholesale meat dealers purchase buffalo meat (carabeef) from municipal slaughterhouses and sell to consumers.

a) **Wholesale meat dealers** collect meat from municipal slaughterhouses and resell to retailers in the locality.

b) **Retailers are both** buyers and sellers. However, in few instances retailers perform the function of slaughtering and wholesaling also.

From slaughterhouses, buffalo meat is purchased by wholesale meat dealers or retailers. Wholesale meat dealers and retailers have to obtain licenses from municipal corporations for buying and selling on the premises of a slaughterhouse. The Indian buffalo meat industry for domestic consumption is based on production of fresh meat which is processed and sold daily. Retail outlets generally are not equipped with air conditioners, refrigerators or deep freezers.

Buffalo meat and edible offal are transported to retail outlets, where they are sold at retail to consumers. The carcasses are generally packed in polythene bags/sheets and transported by various modes such as light delivery trucks ("Tempos"), auto rickshaws, and motorcycles. Unlike mutton stalls, which sell sheep meat, goat meat and dressed chicken, buffalo meat stalls sell only buffalo meat and offal. Buffalo meat is sold at domestic retail market in both boneless and bone-in form.

Buffalo Meat Value Chain for Domestic Market: Share in Consumer Rupee

The figure below describes various stakeholders involved in the marketing channel of buffalo meat production for the domestic market and also the aggregate value realization by them in consumer rupees. The farmer gets 70% of the aggregate value realization in consumer rupees, whereas the trader (middlemen) who generally sells the meat at 115 per kg earns 19% of the share. The retailer claims 11% of the balance.

Indian Buffalo Meat Value Chain for Export Market

The livestock sector is an important component of India's economy in terms of income, employment and foreign exchange earnings. India is the largest buffalo meat exporting country (carabeef) globally, with smaller amount of small ruminant's meat. During the last 41 years, the quantity of meat exported from India has been increasing and so also the number of countries to which it is exported. Currently India has been exporting quality and safe meat to about 64 countries. Buffalo meat has been the major one in Indian meat export accounting for about 23% total production and for more than 85% of total meat export mostly in frozen form. The buffalo meat export industry has grown well. The potential for rapid growth is high, and since the domestic consumption is low (less than 2%), the export potential increases substantially. Buffalo meat export is restricted to countries primarily in the Middle-East, with large ethnic Indian population who prefer it. From export point of view, a major concern in the food industry is safety. There is a direct link between animal-feed quality, hygiene and safety of foods of animal origin. There is a huge potential for buffaloes in meat production for the growing population because of its capacity to convert poor quality roughages into meat.

India can double its meat production by means of buffalo veal production. Contribution of buffalo meat accounts for more than 75% of total exports of Indian meat sector. Indian buffalo meat exports have grown to a record level in the last two years, making India the fourth country in the world to export more than 1 million tonne of bovine meat annually.

Major meat production centres in the country for exports are Aurangabad, Nanded, Mumbai and Satara in Maharashtra; Goa, Zaheerabad and Medak in Telangana, Derabassi in Punjab, Barabanki, Unnao, Aligarh, Meerut, Saharanpur, Noida and Ghaziabad in UP, Mourigram in West Bengal, and Gurgaon in Haryana. Indian per capita buffalo meat consumption remains at 2 kilogram, reflecting a preference for pulses, dairy, and poultry. The EU is expected to import large volume of bovine meat, over the next few years, as abolition of subsidies might lead to rapid decrease in production of livestock products.

The Central America and the Caribbean, Russia, the Middle-East, East Asia and most of the African countries are bovine meat-deficit regions. The major demand for bovine meat is expected to come from these areas and also from the EU. South America, Oceania (Australia and New Zealand) and India are emerging as the major bovine and buffalo meat surplus countries. The continuous drought has been affecting Australia's herd building during the last few years and BSE issue limits the potential of North America. There are also serious concerns that Brazilian bovine meat supply may not be able to keep pace with sharply increased export projections for bovine meat. This offers a great opportunity for India, to grow its international trade volume in meat. Although India ranks at the top in bovine inventory, the inventory of buffalo has been found to be declining in a few states. This indicates a growing shortage of buffalo meat. However, such a decline cannot be related to the export of buffalo meat from the country as there are no registered export units in these states. Secondly, slowdown in increase of population is not only due to slaughter but can also be due to urbanization and conversion of agricultural areas into housing/ commercial/ industrial land. For augmenting exports and assuring quality, developing a traceability model for Indian buffalo meat is very important.

Thereafter traceability is enforced at various stages, namely, ante-mortem, abattoir, post-mortem, chilling and processing hall by assigning the batch number. Despite the immense potential of Indian buffalo meat in international market, it is not been able to cater to major international markets due to some occurrence of FMD, though at much reduced

levels over the years. Major costs involved in undertaking primary operations in export units after receiving of animals and shipment of final marketable products include (a) transportation, (b) packaging, (c) service costs, (d) electricity and diesel, and (e) labour.

Structure of buffalo meat sector: The buffalo meat value chain for export has different stakeholders working at several stages of production (figure 2). Farmers raise the buffalo till they become uneconomical and thereafter sell them to traders. Traders play the role of aggregators in the value chain and sell the buffalo to exporters for further processing and sale in export markets.

1. Farmers rear buffalo for milking and breeding and cull them for meat production when the animals become unproductive. Only unproductive buffalo are utilized for meat exports. The buffalo are reared primarily by farmers in small numbers. Farmers rear buffalo in basically three stages: buffalo-calf, growing and feeding. The livestock used for meat exports are derived from unproductive, culled animals at the end of their productive lives. Only animals permitted under the Animals Preservation Acts are slaughtered for exports. According to the Prevention of Cruelty to Animal Slaughterhouse Rules (2001) no animals may be slaughtered which are

- i. pregnant, or have offspring less than three months old, or
- ii. are under the age of three months, or

iii. Have not been certified by a veterinarian that they are fit for slaughter.

Farmers sell buffalo to traders or at a livestock market.

2. Livestock traders play crucial role as assemblers and suppliers of buffalo in quantity to exporters. As demand for buffalo meat is increasing, many exporters are feeling the need to forge better linkages for an interrupted supply of buffalo for meat production. Exporters are not linked to farmers directly, however. This has given rise to a class known as 'traders' who collect buffalo from different farmers directly or buy animals from livestock markets and sell to exporters. Livestock traders are paid weekly. The payment is decided on the basis of bone-in carcass weight after post mortem examination.

3. Processing at exporter's unit and selling in international market, after receiving, buffalo are kept in lairage for 24 hours for inspection by State Government veterinary officers. The first processing stage starts with slaughter of the buffalo at an abattoir. The supplier (trader) is paid on the basis of carcass weight. The carcass is converted to boneless meat and bones. Bones, inedible viscera and feet are sent to the rendering unit, where meat and bone meal is produced for use in poultry feed. Hides are sold to the leather tanning industry. Edible viscera, heads, and feet are also sometimes sold in the domestic market. Boneless meat is packaged in food-grade polythene film, frozen (at -0 18 c), packed in cartons and kept in cold storage for export. Cartons are dispatched in refrigerated containers for shipment.

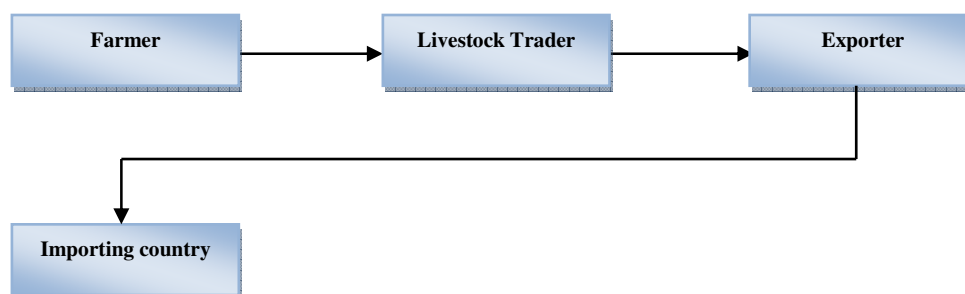


Figure 2: Buffalo meat value chain export

Impact of Beef Ban

Any law that is being made by the government both affects and effects the various sectors of the economy. Looking at one aspect of the law and forming an opinion would not account for a rational attitude. Due to lack of precise and clear information of the outcomes of Maharashtra Animal Preservation (Amendment) Bill, 1995, a lot of waste of energies can be seen. As such this section of the research tries to present an unbiased picture of the economic and social impact that will come into play due to the amended Bill banning the slaughter of bulls and bullocks too, apart from cows which are already banned from slaughtering

Consumers

Not only Muslims and Christians, but also India's Scheduled tribes and Scheduled castes who account for 25 percent of the country's population, are beef eaters. In the states of Kerala, West Bengal and most of the Northeastern region - where cattle slaughter is legal, beef is widely consumed. Beef is one of the most affordable sources of protein for the Dalit community," said Mohan Dharavath, President, Dalit, Adivasi, Bahujan, and Minority Students' Association based in southern city of Hyderabad. Poor people will be forced to look for alternatives and since so many people would have lost one source of food, other meats are bound to become more expensive. The state government cares for animals, but not for humans whose livelihood is going to be affected permanently, Mohammed Qureshi said. Pointing at its food value, Congress MLC Amin Patel said beef has remained a cheap protein source for the poor (The Asian Age, 2015). Buffalo meat is the healthiest meat among red meats known for human consumption because it is low in calories and cholesterol. It has almost 2-3 folds cost advantage over mutton and goat meat.

Employment

The direct effect of the amended bill can be seen on the people engaged in the beef business, it is estimated that around 20 lakh people (in Mumbai) will lose livelihood resulting in a loss of Rs 50 crore business. Mostly the people associated with the business are from minority and backward classes. The leather industry, farmers, middlemen, workers at slaughterhouses,

retailers are also associated with the business. But the government has not offered any alternative for them, especially the Qureshi community, who will be completely jobless, I said Abdul Jameel Qureshi from the Beef Traders' Association. In the city alone, the turnover of the beef trade is of Rs 50 crore, he said. The whole supply chain will be disrupted due to the ban. Right from the cattle procurement, to processing, deboning, packing, and allied industries such as leather, pharma and pet food impact will be seen. A very important aspect of the beef industry is overlooked and that is the farmer who provisions cattle to slaughterhouses. In the drought of legal and better alternatives, he will be left with the illegal option to procure money and recover his costs accrued in rearing of cattle. Uneconomical animals such as aged milch cattle, bulls or male calves are sold fetching at least a minimum of \$332 (Rs 20,000). This is a vital source of income for farmers and a significant security in dire times such as crop failure or drought. As calls are being made by other states to impose ban, shutting down the beef industry is all together not viable. 20 million Indians work in the industry and it yields over \$3 billion in foreign exchange, said Ranjan of Hind Agro.

Leather Industry

The move to ban cattle slaughter and beef consumption in Maharashtra had come at a time when the Indian leather industry was building up good momentum with figures for the financial year that will close at the end of March suggesting strong growth for the sector. About 40% of the demand for cattle hide by Tamil Nadu is being met by Maharashtra. The ban has raised a lot of concerns among the tanner. The concern finds significance in the fact that raw material from Maharashtra is ranked best in the country, after hides from Kolkata and Punjab. With the supply of raw material going down the output of finished leather is also expected to decrease. This downfall is largely attributed to the cost incurred by the tanners who are unlikely to import hides to replace the raw materials earlier received from Maharashtra. The cost of sourcing has gone up by nearly 5%. If Maharashtra is not going to supply, the production of leather will come down. The booming Indian leather industry helped tanners

to get orders from customer who previously sourced leather in China. As such concerns are building up on diversion of current and future orders. A well known figure in the Indian leather industry has complained about a decision in the state of Maharashtra to ban beef, saying the move will have a big effect on the tanning industry elsewhere in India, reports international news site Leatherbiz. Some commentators in India have said that the idea of a ban on beef in a state that includes Mumbai will prove unworkable. However, Rafeeqe Ahmed, who is president of the All India Skin and Hide Tanners and Merchants Association, said in reaction to the announcement in early March that if it goes ahead, tanners in Tamil Nadu will be particularly affected. A much overlooked and side glanced fact is that leather is not a byproduct. it's not a left over component of meat commerce that is being utilised efficiently. The leather industry is highly profitable and money-spinning business. Cuppled with the fact of India's vast livestock. A hide is approximately 10% of the total price of an animal, making it the most commercial part of the body. Surprisingly, leather actually makes the meat industry more sustainable (as selling skins is very profitable while meat isn't always so), not the other way around. The majority of leather comes from India's cows, who are abused, beaten and poisoned in order to make leather for high street stores. As India forbids the slaughter of cows, these poor, innocent animals are forced to endure brutal and grueling journeys where they are confronted with an unimaginable end. With the above fact in view the ban could actually regulate killing of cattle for their skins. The leather black market can actually be monitored and controlled, thus saving the innocent creatures.

Exports

Much of the "beef" that political parties are bickering over and all the legal beef exported is, in fact, "carabeef", eat of the water buffalo and not the cow. Factors that had made the carabeef industry successful are Good quality, Largest population of buffaloes, Efficiency improvements, Increased slaughter, Price-competitiveness in the international market. Affordably priced (both nationally and internationally) Indian buffalo meat exports are growing at 15% annually. In 2013 exports

touched \$3.2 billion. The beef export industry is a well-organized industry. The country has exported 14,49,758.64 MT of buffalo meat products to the world for the worth of Rs. 26,457.79 crores. The major areas for Buffalo Meat production are Uttar Pradesh, Andhra Pradesh, Maharashtra and Punjab.

Major Export Destinations (2013-14): Vietnam Social Republic, Malaysia, Egypt Arab Republic, Thailand, Saudi Arabia and Jordan (APEDA). The export of cow meat is forbidden but it is the meat of the Indian buffalo, less revered than the hump-backed native Indian cow, which is mostly exported under the category of 'beef'. However, cow meat too clandestinely finds its way into the export market.

Much of the "beef" that political parties are bickering over and all the legal beef exported is, in fact, "carabeef", meat of the water buffalo and not the cow. Besides about 3600 slaughter houses, there are live modern abattoirs and one integrated abattoir meat processing plant for slaughtering buffaloes for exports and domestic consumption. There are 24 meat processing plants including 13, hundred percent export oriented units who are mainly engaged in export of meat products. In the last one-year three new export oriented units of buffalo meat processing have been approved and are reportedly under implementation (APEDA).

India accounts for a fifth of the global beef supply, including to markets in Africa and South East Asia. In 2013, the country exported 1.89 million tonnes of beef, about a 50% jump in a five-year period, overtaking Brazil as the world's largest exporter for the second. Currently, the government provides subsidies under a variety of heads such as transport and plant modernization. In all, India has half the buffaloes in the world, according to the Indian Council of Agricultural Research, and the largest number of cattle, with 327 million head, according to the USDA Buffalo is the only potential animal that can boost meat industry in India. Buffalo meat is the major item of Indian meat export generating huge revenue in animal products sector.

Currently, the government provides subsidies under a variety of heads such as transport and plant modernization. Bovine (buffalo and cow) meat from India is popular in South-East Asian

and Gulf countries, said Surendra Kumar Ranjan, Director of Uttar Pradesh based Hind Agro Industries. "Our meat is lean and cheaper. We supply halal meat, which is preferred in Gulf countries," he said. Though meat meeting international standards reaches markets in the Europe, the Gulf and South-East Asia, most of the meat sold in India is substandard. The best quality meat is sent abroad while B-grade meat reaches the domestic market

Trade

CY 2014 and CY 2015 carabeef exports are forecast at 2 and 2.2 million tons CWE on export pace and expectations of increased demand from the Middle East, Africa, and Southeast Asia. Vietnam and Malaysia are the largest export markets for India. Most importers prefer Indian carabeef due to price competitiveness and because it is halal. Carabeef exports to India are heavily restricted for all sources. There are 38 integrated abattoirs in the country which slaughter for export. Agricultural and Processed Food Exports Development Authority (APEDA) inspects them and renews licenses. "The BIS team does checks a few times a year," said Ranjan.

R K Krishnakumar of The Economic Times writes in June 2014 that for years, beef has become an important foreign exchange earner for India next only to basmati rice, with 31% increase in quantity and 52% rise in value terms during 2013-14. India was ranked second largest beef exporter in the world with 20% market share after Brazil by the department of agriculture of the United States (USDA) in its recent report. —As per the figures of Agricultural and Processed Food Products Export Development Authority (APEDA), the beef exports totaled 14,49,759 tonne worth Rs 26,458 crore last year.

In 2013, Naresh Dayal of International Organization for Animal Protection (OIPA) of United Nations in India has demanded from the government to reconsider meat export policy. In fact he documented that beef exports have gone up 44% in four years. According to data compiled by the animal husbandry departments of all states, meat from registered slaughterhouses increased from 5.57 lakh tonnes in 2008 to 8.05 lakh tonnes in 2011. Uttar Pradesh is the top buffalo meat-producing state

with 3 lakh tonnes in 2011. At least 70% of the buffalo meat is exported.

Buffalo meat has emerged as India's second highest agri-export commodity after Basmati rice, according to data released by Agricultural and Processed Food Products Export Development Authority (APEDA) under the Ministry of Commerce. Indian buffalo meat exports touched an all time high of Rs 13,917 crore in value terms in April-October 2013, representing an increase of nearly 58% over same period last year. In terms of quantity too, there has been 23% rise in buffalo meat exports from India.

Among Indian states, Uttar Pradesh (UP) has emerged as the biggest exporter of buffalo meat, followed by Punjab and Maharashtra. Besides having the country's largest buffalo population, UP has also has the highest number of abattoirs-cum-meat processing export units. The state has 317 registered slaughterhouses and, in addition, 24 export-oriented units for buffalo meat. Of total Indian carabeef exports, 67% originates from this state.

CONCLUSION

A considerable amount of social and ideological baggage has sprung-up since the BJP assumed power which potentially can pull down and derail the economic growth and social development prospects of India. India has come a long way since the 1980s. The recent demands, in the wake of recent bans in Maharashtra and Haryana, for an all-India ban on the culling, consumption and sale of cattle meat is a case in point. Such a ban has the potential to pull down India's annual GDP growth rate by about 2 per cent.

Before taking any further step on the basis of their personal ideological convictions, our leaders should remember that beef is a cheap source of protein and fat for India's malnourished masses, mainly those cohorts who already have a high incidence of anaemia and malnutrition like women and children. Beef sourced from buffalo or other bovine varieties is relatively cheap, costing about 30 per cent of lamb and goat-based mutton. Malnutrition amongst the overall Indian population itself is far too high, and is in fact higher than in many African nations which are traditionally considered relatively less developed. The global

experience suggests that 'specified animals' are better protected if their economic value is properly assessed so that a market is developed through which the animal species is well protected, respected and used. The Australian alligator was almost at the verge of extinction during the 1970s due to illegal hunting and the smuggling of its leather. The Australian government then legalized the use of alligator meat and leather, which triggered alligator farming. Today, the Australian alligator is thriving and its farming is also a big industry. A similar Industry thrives in Louisiana in the United States.

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